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NUREG-0923

Advance Notification of Shipments of Nuclear Waste and Spent Fuel

Guidance

Manuscript Completed: May 1982
Date Published: June 1982

Division of Safeguards
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

III

ABSTRACT

U.S. Nuclear Regulatory Commission regulations in 10 CFR 70.5b and 73.37(f) require NRC licensees to notify the governor of a state prior to making a shipment of nuclear waste or spent fuel within or through the state. This guidance was prepared to assist licensees in carrying out those requirements.

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ADVANCE NOTIFICATION OF SHIPMENTS OF NUCLEAR WASTE AND SPENT FUEL

1. OVERVIEW

Beginning on July 6, 1982, NRC licensees will be required to provide advance notification to the governor (or a designated official) of a state prior to transporting certain kinds of radioactive waste and spent fuel within or through the state. Detailed requirements for advance notification of shipments of nuclear waste are set forth in 10 CFR 71.5b, while detailed requirements for advance notification of shipments of spent fuel are set forth in 10 CFR 73.37. Amendments to different parts of NRC regulations were issued because detailed schedule information for spent fuel shipments is safeguards information which must be protected against unauthorized disclosure (see 10 CFR 73.21). This protection is not considered necessary for nuclear waste shipments.

A few days prior to making a shipment of radioactive waste and spent fuel, the licensee must notify the governor (or the governor's designee) that a shipment is to be made. The notification must describe the shipment, provide shipment schedule information, identify the shipper, receiver and carrier, identify the point of origin and the destination, and, in the case of spent fuel shipments, specify the route to be used. Notification updates must be provided in the event of significant schedule changes or cancellations.

The purpose of the rule is to provide states with information not otherwise available to them, which will enable them to contribute to the safety, security, and ease of transport of the shipments.

This guidance document describes an acceptable method for carrying out the advance notification rule.

2. KINDS OF MATERIAL FOR WHICH ADVANCE NOTIFICATION IS REQUIRED

Notification is required for two classes of shipments.

The first class, referred to hereinafter as "nuclear waste", comprises (a) any large quantity of source, byproduct, or special nuclear material required by 10 CFR Part 71 to be in Type B packaging while being transported to, through, or across state boundaries to a disposal site, or to a collection point for transport to a disposal site; or (b) irradiated fuel in a quantity less than that requiring compliance with provisions of 10 CFR Part 73 concerning physical security in transit (i.e., usually 100 grams or less) but large enough to be required by 10 CFR Part 71 to be shipped as a large quantity in Type B packaging while being transported to, through, or across state boundaries irrespective of destination.

The second class of shipment, referred to hereinafter as "spent fuel", comprises irradiated reactor fuel in excess of 100 grams net weight (exclusive of cladding or other structural or packaging material) which has a total external radiation dose rate in excess of 100 rems per hour at a distance of 3 feet from any accessible surface without intervening shielding.

3. PARTIES TO BE NOTIFIED

3.1 Shipment of Nuclear Waste

The principal purpose of the notification rule is to provide information to states along the route. It is expected that most governors will designate a subordinate state official to receive the notifications. A current list of these officials, their addresses, and their telephone numbers is maintained by the NRC staff. A copy of this list is available upon request from the Director, Office of State Programs, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. A copy of the current list is provided with each copy of this guidance document. An updated copy is published annually on or about June 30 in the Federal Register.

Written advance notification is to be mailed or delivered to the listed official in each state where nuclear waste will be transported. In the event that the shipment schedule changes from that provided in the written advance notification, or in the event of a shipment cancellation, a responsible person in the office of the listed official in each state affected by the schedule change or cancellation is to be telephoned and informed of the new schedule. A responsible person is one who agrees to convey the new schedule information to the listed official. Additionally, in the event of a shipment cancellation, a written notice of cancellation is to be sent to each official who has been provided with an advance notification.

Written advance notification is also to be mailed to the NRC regional office which serves the state in which the shipment originates. The mailing address and telephone number of each of the regional offices and list of the states served by each regional office are provided in Appendix A.

A copy of a notice of cancellation is also mailed to the appropriate NRC regional office. Schedule changes need not be telephoned or otherwise be reported to the regional office.

3.2 Shipment of Spent Fuel

Written advance notification is to be mailed or delivered to the listed official in each state where spent fuel will be transported. For notification of states, the list of state officials discussed in the preceding section is to be used. In the event that a shipment schedule changes from that provided in the written advance notification, a responsible person in the office of the listed official is to be contacted by telephone and informed of the schedule change; however, the date and time of a shipment is information which must be protected against unauthorized disclosure. Since specific schedules cannot be discussed over a nonsecure telephone, the change should be reported in terms of the number of hours of advance or delay relative to the schedule provided in the written advance notification.

Cancellation of a spent fuel shipment can be made by nonsecure telephone to each state affected. No written notice of cancellation of a shipment of spent fuel needs to be made to the state.

The advance notification amendment does not impose any new requirement for a licensee to report spent fuel shipment information to the NRC. The reporting requirements of §73.37(b)(1) and §73.72 have been in effect for several years and their provisions continue in force.

4. FILING DATES FOR ADVANCE NOTIFICATIONS

4.1 Shipment of Nuclear Waste

Notification for a shipment of nuclear waste may be either mailed or delivered to designated state officials and to the appropriate NRC regional office. A notification that is mailed must be postmarked at least seven days before the first day of the seven day period during which the shipment is scheduled to depart from the point of origin. A notification that is delivered must reach the office of the appropriate state official and the appropriate NRC regional office at least four days before the first day of the seven day period during which the shipment is scheduled to depart from the point of origin.

4.2 Shipment of Spent Fuel

A notification for a shipment of spent fuel may also be either mailed or delivered to designated state officials. A notification that is mailed must be postmarked at least seven days before the date that spent fuel is scheduled to be transported in the state. A notification that is delivered must reach the office of the state official at least four days before the shipment is scheduled to be transported in the state.

With respect to filing dates for notifications to the NRC, the requirements of §73.37(b)(1) and §73.72 continue in force. No new requirements have been added.

5.0 INFORMATION TO BE FURNISHED IN AN ADVANCE NOTIFICATION

5.1 Shipment of Nuclear Waste

The advance notification furnished to each state in which a shipment of nuclear waste will be transported must:

- o specify the name, address, and telephone number of
  - the shipper,
  - the receiver,
  - the carrier, and
  - an individual who can provide current information concerning the shipment.
- o provide a description of the shipment as required by the Department of Transportation in 49 CFR 172.202 and 172.203(d).

- o specify the address of the point of origin.
- o specify the 7-day period during which the shipment will commence (i.e., depart from the point of origin).
- o specify the 7-day period during which the shipment will first enter the state.
- o specify the address of the destination.
- o specify the 7-day period during which the shipment is scheduled to arrive at its destination.

5.2 Shipment of Spent Fuel

The information furnished to each state in which a shipment of spent fuel will be transported must:

- o specify the name, address, and telephone number of
  - the shipper,
  - the receiver, and
  - the carrier.
- o provide a description of the shipment as required by the Department of Transportation in 49 CFR 172.202 and 172.203(d).
- o specify the route to be used within the state.
- o specify the address of the point of origin.
- o indicate that schedule information is attached as a separate item and that schedule information must be protected against unauthorized disclosure until a specified date. For an individual shipment that date is to be 10 days after the shipment is scheduled to reach its destination. For a shipment which is a component in a series of shipments, that date is 10 days after the last shipment is scheduled to arrive at its destination.
- o specify on a separate sheet, which is to be protected against unauthorized disclosure, the date and time (within a tolerance of ±6 hours) that the shipment is (1) first scheduled to be transported in the state, and (2) scheduled to depart from the point of origin.

6. FORMAT FOR AN ADVANCE NOTIFICATION

An acceptable format is given in Appendix B. The same form can be used for notification of both nuclear waste shipments and spent fuel shipments. The form is arranged around a shipment identification number and 9 blocks of information. One or more blocks will be left blank depending on whether the form is used to provide advance notification of a nuclear waste shipment or a spent fuel shipment. Details of the information to be furnished in each block follow.

SHIPMENT IDENTIFICATION NUMBER AND PAGE NUMBERS

The shipment identification number is intended to be a unique series of characters and digits that will unambiguously identify each notification and enable it to be quickly retrieved from among other notifications that might be currently active in a state. On the top of each sheet, in the blank provided for the shipment ID number, enter the NRC license number of the shipper followed by the date on which the notification is being prepared. For example: SNM 123-3/16/82. A licensee who is dispatching more than one shipment during any one day should distinguish among the shipments by adding a suffix such as "A" or "B" following the date.

Each page of the notification should be numbered sequentially and the number of pages that make up the notification should be noted on each page.

BLOCK 1: SHIPPER

The term "shipper" as used herein refers to an NRC licensee who offers a shipment of nuclear waste or spent fuel for transport. The shipper's address will not necessarily correspond to the address of the point of origin. In the case of an import shipment of spent fuel, the licensee who holds the import license is considered to offer the shipment for transport in the United States at the point of entry and is, therefore, considered to be the shipper for purpose of this advance notification.

Line 1.a. Name Enter the name of the licensee.

Line 1.b. Address Enter the street address of the licensee. This address will not necessarily be the same as the address of the point of origin of the shipment.

Line 1.c. Telephone Number Enter the telephone number with area code of a licensee contact for the shipment.

BLOCK 2: CARRIER

The term "carrier" as used herein refers to the person who transports nuclear waste or spent fuel in the United States.

Line 2.a. Name Enter the name of the carrier organization.

Line 2.b. Address Enter the street address of the carrier organization.

Line 2.c. Telephone Number Enter the telephone number, including area code, of a contact within the carrier organization.

BLOCK 3: RECEIVER

The term "receiver" as used herein refers to a person who accepts delivery of the shipment from the carrier and takes physical possession of the shipment, either permanently or temporarily.

Line 3.a. Name Enter the name of the receiving organization.

Line 3.b. Address Enter the street address of the receiving organization. This address is not necessarily the same as the address of the destination.

Line 3.c. Telephone Number Enter the telephone number, including the area code, of a contact within the receiving organization.

BLOCK 4: PART 71/PART 73 INDICATION

Enter a mark in the Part 71 box if the notification is for a shipment of nuclear waste. Enter a mark in the Part 73 box if the notification is for a shipment of spent fuel.

BLOCK 5: DESCRIPTION OF SHIPMENT

One way a licensee may comply with the intent of this block is to attach a copy of the shipping papers which are required by the Department of Transportation rules set forth in 49 CFR 172.202 and 172.203(d). If the shipping papers have not been prepared, then the shipment description as specified in DOT regulations in 49 CFR 172.202 and 172.203 must be prepared and attached.

BLOCK 6: FOR PART 71 SHIPMENTS

This block is used only for a notification of a shipment of nuclear waste.

Line 6.a. Address of the point of origin. Enter the street address of the point at which the shipment of nuclear waste will be loaded aboard the transport vehicle.

Line 6.b. Shipment departure schedule. Enter the date of the first day of the 7-day period during which the shipment is to depart from the point of origin.

Line 6.c. Schedule for shipment entry into indicated state(s). Under the column heading marked "state", list each state, other than the state containing the point of origin, which the shipment is scheduled to enter. Under the column labeled "Entry is scheduled . . .", enter, for each state listed, the date of the first day of the 7-day period during which the shipment is scheduled to enter that state.

Line 6.d. Address of the shipment destination. Enter the street address of the location at which the shipment is scheduled to be offloaded from the final transport vehicle.

Line 6.e. Schedule for shipment arrival at the destination. Enter the date of the first day of the 7-day period during which the shipment is scheduled to arrive at the destination specified on line 6.d.

BLOCK 7: ADDITIONAL INFORMATION FOR A PART 73 SHIPMENT OF SPENT FUEL

This block is used only for a notification of a shipment of spent fuel.

Line 7.a. Point of origin. Enter in the first blank the address of the location at which the spent fuel cask containing spent fuel will be loaded

aboard the transport vehicle. List in the second blank the routes to be used in that state. A typical listing of highway routes might be: County road 648 to state route 50. State route 50 to Interstate 40. Interstate 40 to Tenn./ Arkansas border.

Railroad routes can be described in terms of the name of the railroad lines to be used, the location of junction points where the shipment car will be switched between railroad lines and other key locations en route. A typical listing for a single state might be: From siding serving XX Power Station to Abottsville switch yard via Ontario RR Line. From Abottsville switch yard to Bakersville switch yard via Huron RR Line. From Bakersville switch yard to state boundary near Cartersville via Superior RR Line.

Lines 7.b.(1) through Line 7.b.(5). Routes to be used. In the first blank in Line 7.b.(1), list the name of the next state (if any) that the shipment will enter. List in the second blank the routes to be used in that state. Following the same pattern, use lines 7.b.(2) - 7.b.(5) for listing the names of additional states (if any) that will be entered while the shipment is en route to its destination and list the route to be used in each state. Continue state and route listings on a separate sheet if more space is needed. Separate sheets should have the shipment ID number. Additional listing should begin with 7.b.(6).

Line 7.c. Unauthorized disclosure of schedule information. This line reminds users of the notification form that schedule information is provided in a separate enclosure and that schedule information must be protected against unauthorized disclosure until a specified date, which is determined as follows. For individual shipments the date to be entered is the date of the scheduled arrival of the shipment at the destination + 10 calendar days. For shipments which are components in a series of shipments, the date to be entered is the date of the scheduled arrival of the last shipment in the series at the destination + 10 calendar days.

BLOCK 8: SIGNATURE

The entry in this block identifies the individual who prepared the notification.

BLOCK 9: SCHEDULE INFORMATION FOR A PART 73 SHIPMENT OF SPENT FUEL

This block is used only for a notification of a shipment of spent fuel. When the requested schedule information is entered into the block, the block becomes unclassified safeguards information and must be protected against unauthorized disclosure until the date specified in line 7.c. Requirements for the protection of unclassified safeguards information are set forth in 10 CFR 73.21. Staff guidance concerning these requirements is set forth in NUREG-0794 "Protection of Unclassified Safeguards Information".

SHIPMENT IDENTIFICATION NUMBER. Copy the identification number from the main sheet.

Line 9.a. Departure schedule. This line is to be completed in one of two ways, depending upon whether the information is to be used to notify the state in which the point of origin is located or some other state along the route.

If the notification is to be furnished to the state in which the point of origin is located (or to the NRC regional office), then (1) enter in the first blank the estimated time of departure, (2) enter in the second blank the planned date of departure, and (3) strike out the remainder of the first sentence of item 9a.

If the notification is to be furnished to a state along the route (other than the state in which the point of origin is located), then (1) and (2) enter information in the first two blanks as specified in the preceding paragraph, (3) enter in the third blank the name of the state to which the notification is being sent, (4) specify in the fourth blank the time of day that the shipment is scheduled to enter that state, and (5) specify in the last blank the date that the shipment is scheduled to enter that state.

The regulations in §73.37(f) permit a tolerance of ±6 hours departure from the specified schedule. In the event of schedule changes greater than that, the affected states must be renotified of the change by telephone.

Line 9.b. Single shipment or series. Enter a mark in the appropriate box to indicate whether the shipment is a single shipment or a component in one of a series of shipments.

Line 9.c. Unauthorized disclosure of safeguards information. Enter the same date as in line 7.c.

7. COMPLEX ADVANCE NOTIFICATIONS

The format just discussed is intended to cover most shipments by road or rail. However, some transportation plans may be too complex to allow the advance notification to be presented in the simple format that is set forth in Appendix B. Complexities might arise from use of more than one mode of transportation or through delays in transferring a shipment between modes or through other anomalies. When the format does not fit the situation or provide a clear notification, the notification form should be either supplemented or replaced with a straightforward narrative that gives the information required in 10 CFR 73.37(f) or 71.5b.

APPENDIX A

United States Nuclear Regulatory Commission

Regional Offices of the Executive Director for Operations

UNITED STATES NUCLEAR REGULATORY COMMISSION REGIONAL OFFICES

Region	Address	Telephone Daytime, Nights and Holidays
I Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont	USNRC 631 Park Avenue King of Prussia, PA 19406	(215)337-5000
II Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, Puerto Rico, South Carolina, Tennessee, The Virgin Islands, Virginia, and West Virginia	USNRC 101 Marietta Street Suite 3100 Atlanta, GA 30303	(404)221-4503
III Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin	USNRC 799 Roosevelt Road Glen Ellyn, IL 60137	(312)932-2500
IV Arkansas, Colorado, Idaho, Kansas, Louisana, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming	USNRC 611 Ryan Plaza Drive Arlington, TX 76102	(817)465-8100
V Alaska, Arizona, California, Hawaii, Nevada, Oregon, Pacific Trust Territories, and Washington	USNRC 1450 Maria Lane Suite 210 Walnut Creek, CA 94596	(415)943-3700

APPENDIX B

Typical Format for an

Advance Notification

Shipment identification number: _____ - _____
NRC License No. — Today's Date Mo/Day/Year

1. Shipper

a. Name _____

b. Address _____

_____

_____

C. Tel. No. _____

2. Carrier

a. Name _____

b. Address _____

_____

_____

c. Tel. No. _____

3. Receiver

a. Name _____

b. Address _____

_____

_____

c. Tel. No. _____

4. This notification is being furnished in compliance with NRC regulations in:

Part 71 ☐ Part 73 ☐

5. A DESCRIPTION OF SHIPMENT AS REQUIRED BY DEPARTMENT OF TRANSPORTATION IN 49 CFR §§ 172.202 & 172.203(d) IS ATTACHED.

6. ADDITIONAL INFORMATION FOR A PART 71 SHIPMENT OF NUCLEAR WASTE

a. The street address of point of origin is _____

_____.

b. The shipment is scheduled to begin during the 7-day period commencing _____.

c. Schedule for shipment entry into indicated state(s):

State	Entry is scheduled during the 7-day period commencing

d. The street address of the shipment destination is _____

_____.

e. The shipment is scheduled to arrive at the destination during the 7-day period commencing _____.

f. Current information concerning the shipment can be obtained from:

Name _____

Address _____

_____

_____

Tel. No. _____
(Area Code) (Tel. No.)

Shipment identification number: _____ - _____
NRC License No. Today's Date Mo/Day/Year

7. ADDITIONAL INFORMATION FOR A PART 73 SHIPMENT OF SPENT FUEL

a. The street address of the point of origin is _____ and the route to be used within that state is:

_____.

b. The shipment is scheduled to be transported through (or into) the following additional states using the routes indicated:

(1) _____ State _____ Route(s)

_____ Route(s)

(2) _____ State _____ Route(s)

_____ Route(s)

(3) _____ State _____ Route(s)

_____ Route(s)

(4) _____ State _____ Route(s)

_____ Route(s)

(5) _____ State _____ Route(s)

_____ Route(s)

c. Schedule information is attached as a separate sealed item. It must be protected against unauthorized disclosure until _____.

8. This notification is being provided by:

Organization: _____ By: _____ (Signature)

Address: _____

_____ _____ (Title)

_____

Shipment identification number: _____ - _____
NRC License No. Today's Date Mo/Day/Year

9. Schedule Information for a Part 73 Shipment of Spent Fuel

a. The shipment is scheduled to depart from the point of origin at _____ AM PM (±6 hours) on _____ (Date)

and is to enter _____ (State) at _____ AM PM (±6 hours)

on _____ (Date). All times are expressed as legal local time at the specified location.

b. This shipment is intended to be ☐ one in a series of shipments. ☐ a single shipment.

c. This schedule information is to be protected against unauthorized disclosure until _____ (Date).

NRC FORM 335 (7-77) U.S. NUCLEAR REGULATORY COMMISSION

BIBLIOGRAPHIC DATA SHEET

1. REPORT NUMBER *(Assigned by DDC)*
NUREG-0923

4. TITLE AND SUBTITLE *(Add Volume No., if appropriate)*
Advance Notification of Shipments of Nuclear Waste and Spent Fuel

Subtitle: Guidance

2. *(Leave blank)*

3. RECIPIENT'S ACCESSION NO.

7. AUTHOR(S)

5. DATE REPORT COMPLETED
MONTH: May YEAR: 1982

9. PERFORMING ORGANIZATION NAME AND MAILING ADDRESS *(Include Zip Code)*

Division of Safeguards
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

DATE REPORT ISSUED
MONTH: June YEAR: 1982

6. *(Leave blank)*

8. *(Leave blank)*

12. SPONSORING ORGANIZATION NAME AND MAILING ADDRESS *(Include Zip Code)*

Same as 9.

10. PROJECT/TASK/WORK UNIT NO.

11. CONTRACT NO.

13. TYPE OF REPORT
Guidance

PERIOD COVERED *(Inclusive dates)*

15. SUPPLEMENTARY NOTES

14. *(Leave blank)*

16. ABSTRACT *(200 words or less)*

U.S. Nuclear Regulatory Commission regulations in 10 CFR 70.5b and 73.37(f) require NRC licensees to notify the governor of a state prior to making a shipment of nuclear waste or spent fuel within or through the state. This guidance document was prepared to assist licensees in carrying out those requirements.

17. KEY WORDS AND DOCUMENT ANALYSIS

17a. DESCRIPTORS

17b. IDENTIFIERS/OPEN-ENDED TERMS

18. AVAILABILITY STATEMENT
Unlimited

19. SECURITY CLASS *(This report)*
Unclassified

21. NO. OF PAGES

20. SECURITY CLASS *(This page)*
Unclassified

22. PRICE
$

NRC FORM 335 (7-77)